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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,692	05/14/2001	Junichi Hibino	NAK1-BO16	4065

7590

04/23/2003

JOSEPH W PRICE  
PRICE GESS & UBELL  
210 S.E. MAIN STREET  
SUITE 250  
IRVINE, CA 92614

EXAMINER

COLON, GERMAN

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/786,692

Applicant(s)

HIBINO ET AL. ✓

Examiner

German Colón

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 7, 12-15, 20, 21, 23-29, 31, 35, 36 and 38-90 is/are pending in the application.
- 4a) Of the above claim(s) 1-5, 7, 12-15, 21, 23-29, 31, 35, 36, 38-74 and 76-90 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20 and 75 is/are rejected.
- 7) ☐ Claim(s) 75 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group II in Paper No. 9 is acknowledged.

### ***Claim Objections***

2. Claim 75 is objected to because of the following informalities:

On claim 75, line 3, a reference to a substance "more difficult to melt the bonding agent".

For the purpose of examination, the Examiner interpreted it as "a substance more difficult to melt *than* the bonding agent", as evidenced on at least amended page 19, line 23.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al. (EP 0 945 886) in view of Kosaka et al. (US 5,992,320).

Sasaki discloses a display panel manufacturing method for connecting a pair of substrates arranged in opposition via a plurality of barrier ribs 7 (or 50) formed in a specific pattern on at least one of the substrates and a bonding agent 15 (or 31) arranged on the barrier ribs, the display

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panel manufacturing method comprising a barrier rib pattern forming process and a bonding agent pattern forming process, including:

a step of forming layers of barrier rib material and bonding agent material of certain thicknesses having a specific pattern on a substrate.

Sasaki is silent regarding a forming process including: removing parts of the laminated barrier rib material and bonding agent to form a specific pattern; and a step of transferring the pattern to the substrate on which the barrier ribs are to be formed.

However, in the same field of endeavor, Kosaka discloses a method of manufacturing a display panel comprising a pattern-forming step and a transferring sheet and teaches that with this method it is possible to reduce the time needed for fabricating barrier ribs and other layers, and improve the yield of said layers, providing surface smoothness, uniform thickness, good profile precision, and reducing cost of manufacture (see Col. 5, lines 14-23). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Kosaka in the manufacturing process of Sasaki in order to reduce the time needed for fabricating barrier ribs and other layers, and improve the yield of said layers, providing surface smoothness, uniform thickness, good profile precision, and reducing cost of manufacture.

5. Claim 75 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al. – Kosaka et al. as applied to claim 20 above, and further in view of Browning (US 6,030,267).

Sasaki-Kosaka discloses the claimed invention except for the limitation of “the bonding agent being arranged on the barrier ribs using a compound including a substance which is more difficult to melt than the bonding agent”. However, in the same field of endeavor, Browning

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teaches a manufacturing process for display panels wherein a bonding agent includes a substance more difficult to melt than the bonding agent with the purpose of accurately maintaining an alignment of the substrates as fast as possible and at low temperatures (see Col. 2, lines 32-36 and 54-55). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Browning of providing a bonding agent comprising a substance which is more difficult to melt than the bonding agent in order to accurately maintaining an alignment of the substrates as fast as possible and at low temperatures.

#### ***Prior Art of Record***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Chen et al., in US 6,515,420, discloses a PDP comprising a bonding agent over the barrier ribs (see Fig. 6)

Murai et al., in US 5,754,003, discloses a PDP comprising barrier ribs and a plurality of height-adjusting layers over said barrier ribs.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to German Colón whose telephone number is 703-305-5987. The examiner can normally be reached on Monday thru Friday, from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 703-305-4794. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-308-7382 for regular communications and 703-308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

  
gc

April 19, 2003



**KENNETH J. RAMSEY  
PRIMARY EXAMINER**